



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,490	11/03/2003	Kou Yamamoto	XA-9971	3241
181	7590	07/21/2006	EXAMINER	
MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			SPISICH, GEORGE D	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,490

Applicant(s)

YAMAMOTO, KOU

Examiner

George D. Spisich

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/21/06</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP2588338 (cited by Applicant in IDS) in view of JP2002-166835 (cited and applied in the First Office Action by the Examiner).

JP' 338 discloses an extendable and contractable steering column apparatus for a vehicle including an outer column (20) through which an inner column (22) is slidably inserted, a lock housing portion (23) formed on the outer column and a locking mechanism that includes a pair of movable pieces (25,27) slidably fitted within a bore (24) formed through the lock housing portion in a vehicle body widthwise direction and a screw rod (31) passing through the pair of movable pieces, and an operation lever (36) disposed at an end portion of the screw rod, wherein the pair of movable pieces is shifted toward each other so as to press the inner column and to shift the pair of movable pieces from each other so as to release the pressure on the inner column in response to swinging of an operating lever. Examiner has interpreted the JP '338 to include all the details of Applicant's invention discussed above, as it is apparent that

Art Unit: 3616

Applicant's invention is the improvement of the circular bore and circular cross section locking element to a non-circular bore and correspondingly non-circular sliding member (in cross section), which are not present in JP '338.

Although JP '835 (see Figs. 1 and 2) shows the sliding member (11a) sliding up the member (13a) to press against the inner column of the steering arrangement, it is clearly taught that a non-circular (in cross section) sliding member is used to properly engage the inner column. In this reference, the square sliding member obviously prevents undesirable rotation of the sliding member as may be present in the round sliding member of JP '338. Furthermore, the non-circular cross section sliding member of JP '835 ensures the proper alignment of the sliding member such that during assembly, the sliding member is properly installed in the arrangement so as to have the proper contact area alignment with the inner column.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the steering column arrangement of JP '338 by providing a non-circular cross section for the bore and sliding member as taught by JP '835 so as to prevent undesired rotation and ensure proper alignment of the sliding member and the inner column to allow for proper contact. Furthermore, it would be within the knowledge and skill of one of ordinary skill in the art to modify the round cross section members of JP '338 to provide the member with sides so as to prevent undesired rotation and misalignment of the engaging parts in assembly and operation.

With respect to Claim 2 "integrally molded" and Claim 3 "formed of die cast molded aluminum", Examiner points out that the method of forming the device is not

Art Unit: 3616

germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentably weight.

With respect to Claims 4 and 5 and the detail that at least one surface of the polygonal locking member cross section is parallel to an axis of the screw rod and all of the peripheral surfaces forming the cross section are flat and parallel to an axis of the screw rod, Examiner considers that as one of ordinary skill in the art and in view of JP '835 modifies the locking member of JP '338 which is circular in cross section that has sides parallel to the axis of the screw rod, to be polygonal, the sides would also remain parallel to the axis of the screw rod and "all be flat".

With respect to the structure detail that the lock housing is integral with the outer column, the term integral need only be that that are connected, and furthermore, JP '338 shows an integral lock housing and outer column.

With respect to the limitation that the outer column is formed of die cast molded aluminum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the well known material Aluminum, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### ***Response to Arguments***

With respect to Applicant's argument that JP '835 does not teach or suggest a problem with the structure in JP '338, Examiner disagrees and maintains the rejection. Examiner insists that the only difference between the JP '338 (which is Applicant's prior Art Figure 4) is having sides on the movable members that correspondingly engage the sides of the bore. Examiner maintains that it is within the knowledge and skill of one of ordinary skill in the art to modify the circular (in cross section) members and bore to be polygonal (in cross section) so as to prevent undesired rotation and ensure proper alignment and this is also taught by JP '835 since the pieces do not rotate and ensure proper alignment of the engaging portions of the movable members and the steering column.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3616


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George D. Spisich  
July 17, 2006



DAVID R. DUNN  
PRIMARY EXAMINER